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Pete Bosanic, Testimony to Senate and House Committees

I would like to thank the committee for taking the time to listen to our concerns.

My name is Pete Bosanic. I am a licensed professional engineer in Michigan and 7 other states. I am also a certified underground storage tank professional in Michigan. I am the co-founder of PM Environmental an environmental consulting company with 3 offices in Michigan and in several other states. I have been practicing as an environmental consultant for over 20 years.

I am the Chair of the Environmental Issues Committee for the Michigan Petroleum Association (MPA). Our committee is made up of environmental professionals with degrees in engineering, geology and environmental science from approximately 20 environmental consulting firms plus those from major oil companies such as BP, Marathon, Shell, etc. The members share a common goal of protecting the environment, but using sound science to address contaminated sites. This includes cleaning up contamination but also having the ability to properly manage contamination in place, when appropriate.

Many of the committee members are familiar with what other states are doing. Additionally, members are active on technical committees for the American Society for Testing Materials (ASTM) and the Interstate Technology & Regulatory Council (ITRC), both of whom are groups that provide guidance on how to address contamination from leaking underground storage tank (UST) sites.

I'm hear to testify regarding what we believe are some of the main problems and suggest some solutions, with how the DEQ administers the Cleanup Program in Michigan related to the clean-up of leaking USTs.

During the last seven or eight years, the DEQ has become increasingly risk adverse and regularly redefines what it considers to be an unacceptable risk. There have been numerous policy changes,

many made without stakeholder involvement, and that are not in line with industry standards from ASTM and ITRC, that have been applied retroactively. The changes have resulted in the clean up program being a "Moving Target" that isn't possible for the regulated community and environmental consultants to hit.

The ASTM Risk Based Corrective Action (referred to as RBCA) approach provided for under Michigan's Part 213 of NREPA PA 451 of 1994 as amended, has essentially been dismantled. The RBCA approach allows for a site specific evaluation of risks and the ability to manage some contamination in-place. The DEQ has chosen to ignore current approaches on dealing with contamination as outlined by ASTM and ITRC.

One of the biggest policy changes that the DEQ has made is related to what is called Light Non-Aqueous Phase Liquids (LNAPL). This is petroleum product that is released into the ground. There are various phases of LNAPL including residual, mobile and migrating. Both ASTM and ITRC have spent close to 20 years studying LNAPL and its various phases and have guidance on how to deal with it. The DEQ has chosen to lump all phases of LNAPL into one definition "Free Phase Contamination". This definition does not allow ASTM RBCA practices to be applied and dictates that corrective action through source removal be conducted.

There is a specific section of the ASTM RBCA guidance document (section 4.5 of ASTM E1739-95 (2002 version)) that is titled "In order to properly apply the RBCA process, the user should avoid the following:

> 4.5.7 Dictating that corrective action goals can only be achieved through source removal and treatment actions, thereby restricting the use of exposure reduction options such as engineering and institutional controls.

This is exactly what Michigan is requiring, which is contrary to established industry standards. The DEQ's changes have resulted in all sites being essentially regulated the same and unfortunately for a "worst case", "what if" scenario.

The regular changes and regulating to the "what if" scenario, have severely reduced the ability of the regulated community to conduct site investigations and cleanup and to ultimately achieve closure. Michigan ranks at the bottom of the states for closing sites.

The DEQ often references changes in science that require changes to the state's clean-up criteria and that their changes are based on new science. No one argues when a legitimate "new science" results in a change to the criteria. However, many of the DEQ's changes are simply policy changes that are more risk adverse.

Examples of changes include:

- Viewing just parts per billion of petroleum as being pure petroleum product (free phase contamination). This has resulted in both open and closed contaminated sites with what was previously considered low levels of contamination now being considered highly contaminated. To comply the USTs and fuel dispensers often have to be removed and contaminated soil excavated (dictating source control by removal). Has there been a cost benefit analysis of this requirement? RBCA allows for a common sense approach that is based on sound science to manage some contamination in place.

- Requiring "low flow" groundwater sampling that was originally used at large Superfund sites. This resulted in consultants having to purchase expensive sampling equipment and often invalidated data collected using previous sampling methods. Was the worry that the data may be off a fraction of a part per billion really worth the effort?

- Treating storm sewers and backfill in utility corridors as a direct conduit to the surface waters of the state. This includes sites located in downtown urban cores that are no where near a surface water body. This results in having to apply very stringent cleanup criteria, which are often impossible to achieve. Is the risk really that high that shallow groundwater contamination in downtown Detroit, Lansing, Grand Rapids, etc. will impact a surface water body?

- Requiring sampling for numerous naturally occurring metals such as Iron and Manganese that are not contained in petroleum products, because the potential exists that the metals may have been released from the soils into the groundwater due to the petroleum contamination.

One might ask the question, "Aren't all these changes good for environmental consultants and create more work, so why are environmental consultants so concerned with what is happening"?

The answer is that the regular policy changes have resulted in a moving target that is not possible to hit. It is impossible for environmental consultants to effectively advise their clients of what will be required to achieve closure and to provide adequate cost estimates. What would have been considered clean last year now needs further investigation and cleanup this year with no guarantee of closure and the very likely possibility of more changes to come. Many of the regulated community and environmental consultants have given up and are doing the bare minimum.

Some solutions include:

1. To follow the Part 213 statute and allow the ASTM RBCA process to be applied on a site specific basis as intended, instead of regulating all sites the same and for the "what if", worst case scenario.
2. Staying abreast of what is happening in other states and with current approaches being used by ASTM, ITRC, EPA, etc. and admitting/changing policy when it is clear Michigan is on the wrong path.
3. Past risk adverse policy changes need to be evaluated in a cost benefit manner to determine whether they are truly beneficial or simply adding very expensive, unnecessary burdens to achieving closure. And,
4. The DEQ needs to involve stakeholders from the regulated community instead of making the changes on their own, many times behind closed doors with less than transparent logic.

The MPA has done an evaluation of Final Assessment/Closure Report audit letters issued by the DEQ during the last two years to assess examples of impact of regular DEQ policy changes based on regulating to the "what if" scenario.

Examples of DEQ Requests

- The DEQ sent letters to dozens of owner/operators, but this impacts potentially thousands of Sites located across the state
  - The DEQ believes a source of contamination exists due to DEQ policy change on Free Phase Contamination where the DEQ now views just parts per billion of chemicals as pure petroleum product and is dictating source removal. The DEQ states that Michigan's published cleanup criteria can longer be used.
  - This policy requires that the "source" be removed, which usually means extensive excavation including removal of USTs, fuel dispensers, in right-of-ways, etc.
  - This policy impacts both open and closed LUST sites.
  - This is inconsistent with RBCA. Every drop of contamination does not have to be removed. In many instances it can be safely managed in place.

- Site located in downtown Detroit that with open release since the mid 1990s.
  - About 70 soil borings drilled and 20 permanent and temporary monitoring wells installed
  - Over 1,600 cyds of contaminated soil removed
  - DEQ has denied closure five times and conducted audits since 2000, each time with new requirements imposed
  - The DEQ believes that there is a source of contamination in the right-of-way. The last excavation hand dug until all utilities were exposed. No further excavation could occur without cutting out and removing the utilities including natural gas line and a fiber optic line, removing part of the road. This is not good enough for the DEQ. The next step would be to remove the road and utilities.

- Site located in Homer
  - THE DEQ believes that there is a source of contamination beneath the UST
  - Four different DEQ PMs
  - The DEQ is requesting that the soil directly beneath the UST be vertically profiled. This means that the DEQ wants the UST system removed and soil borings to be drilled where the UST was formerly located.
  - The UST system is in compliance with Part 211.
  - The extent of soil and groundwater contamination have been adequately delineated around the perimeter of the UST system. There is no need to remove the UST.

- Site located in Romulus
  - Active gas station with soil contamination, a corrective action plan (CAP) proposing excavation combined with vapor extraction beneath the UST system (so it doesn't have to be removed) and in the ROW was proposed.
  - The DEQ denied the CAP stating the "experience of the quality review team (QRT) that when contaminated soils are relatively shallow, excavation and disposal is the most cost effective alternative". The DEQ is dictating source removal.
  - To comply the UST system needs to be removed.
  - What about the ROW?